

REMARKS/ARGUMENTS

The above-identified patent application has been reviewed in light of the Examiner's action dated June 28, 2007. Claims 1, 3, 4, 6, 8, 15, 21, 22, and 23 have been amended, and Claims 16 and 19 have been canceled, without intending to abandon or dedicate to the public any patentable subject matter. Accordingly, Claims 1-15, 17, 18, and 20-23 are now pending. As set forth herein, reconsideration and withdrawal of the objections to and rejections of the claims are respectfully requested.

Claims 3, 17, 18, 22 and 23 are objected to due to various informalities. In particular, the Examiner suggests that "a keep alive message" in Claim 3, Line 4, should be replaced by "the keep alive message." However, it is submitted to that "a keep alive message" is appropriate in each instance of that phrase included in the claim. Applicant notes that slight amendments to Claim 3 in the interest of clarity have been made in the amendments set forth above.

Accordingly, it is submitted that the objection to Claim 3 should be reconsidered and withdrawn.

With respect to Claims 17, 18 and 23, the Examiner suggests that the recitation of "a lightweight RRQ message" should be changed to "the lightweight RRQ message." However, Applicant notes that there is no antecedent basis for sending a lightweight RRQ message to a third gateway as stated by these claims, and therefore the suggested change has not been made. Moreover, Claims 17, 18 and 23 are believed to be sufficiently clear. Accordingly, the Applicant requests that the objections to Claims 17, 18 and 23 be reconsidered and withdrawn.

With respect to Claim 22, the Examiner suggests that Applicant remove "said" from "said means for generating addresses" in order to improve clarity. Though Applicant does not agree

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with this suggested change, other changes to the claim have been made. In view of these amendments, it is submitted that the objections to Claim 22 should be reconsidered and withdrawn.

Claims 15, 21, 22 and 23 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out distinctly claim the subject matter that Applicant regards as the invention. In particular, the Office Action finds that the "means for controlling" in Claims 21-23 is unclear. In the amendments set forth above, Claims 21-23 have been amended. In view of these amendments as submitted, the rejection of these claims as indefinite should be reconsidered and withdrawn. Applicant further notes that there is no specific deficiency noted with respect to Claim 15, and Applicant notes that Claim 15, particularly in view of the amendments set forth above, is sufficiently definite. Accordingly, any rejection of Claim 15 as indefinite should be reconsidered and withdrawn.

Claims 15-18 stand rejected under 35 U.S.C § 101 as being directed to non-statutory subject matter. Moreover, the Examiner suggests that the claims be redirected to a computer-readable medium encoded with a computer program. In the amendments set forth above, Claim 15 has been so amended. In view of the amendment, it is submitted that rejections of Claims 15-18 as being directed to non-statutory subject matter should be reconsidered and withdrawn.

Claims 1-6, 8, 9, 10, and 12-23 stand rejected under 35 U.S. C. § 102 as being anticipated by U.S. Patent Number 6,771,623 to Ton ("Ton"). In addition, Claim 7 stands rejected under 35 U.S.C. § 103 as being unpatentable over Ton in view of U.S. Patent Number 6,930,999 to Craig, et al ("Craig"), and Claim 11 stands rejected under 35 U.S.C. § 103 as being unpatentable over Ton in view of U.S. Patent Number 6,904,277 to Tsutsumi, et al ("Tsutsumi"). In order for a

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rejection under 35 U.S.C. § 102 to be proper, each and every element as set forth in a claim must be found, either expressly or inherently described, in a single prior art reference (MPEP Section 2131.) In order to establish a *prima facia* case of obviousness under § 103, there must be some suggestion or motivation to modify the reference or to combine the reference teachings, there must be a reasonable expectation of success, and the prior art reference or references must teach or suggest all the claim limitations. (MPEP Section 2143.) However, all the claimed elements cannot be found in the cited references, whether those references are considered alone or in combination. Accordingly, reconsideration and withdrawal of the rejections of the claims, as anticipated by or obvious in view of the cited references are respectfully requested.

The present invention is generally directed to efficiently recovering realtime data communication signaling channels established over an Internet protocol network. More particularly, embodiments of the claimed invention are directed to re-establishing a call signaling channel that supports a bearer channel comprising realtime communications. The call signaling channel is effectively re-established by establishing a second, alternate call signaling channel in response to losing a first call signaling channel. In addition, the pending claims recite that the second or alternate call signaling channel is established by sending a keep alive message and/or a lightweight registration request message to a second, alternate gatekeeper. At least some of these noted aspects of the invention as claimed are not taught, suggested or described by the cited references, whether those references are considered alone or in combination.

The Ton reference is generally directed to a method for ensuring reliable mobile IP service. More particularly, Ton allows registration with alternate agents when a primary agent is unavailable. However, Ton is not directed to re-establishing a call signaling channel. That is,

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Ton is directed only to the initial registration of a mobile node with a home agent or alternate home agent. In addition, Ton does not teach, suggest or describe sending a keep alive message that comprises a lightweight registration request. Instead, the cited portion of Ton references sending a normal registration request (not a lightweight registration request) to a foreign agent. Accordingly, it can be appreciated that Ton is directed to a much different situation than the claimed invention.

Also, Ton does not reference a situation where a first call signaling channel is lost. In particular, the portion of Ton cited with respect to this aspect of Claim 1 instead discusses the need for mobility functions such as roaming and handover in order to support mobile terminals using IP networks. With respect to the recitation in independent Claim 8, related to establishing a second communication link after the first communication link is lost and after an exchange of a lightweight RRQ message and RCF message, the portion of Ton cited in the Office Action relates to sending a mobility binding update message from a first home agent to a second home agent.

The Office Action admits that Ton does not disclose establishing a call signaling channel according to the H.323 protocol. For disclosure of such a protocol, the Office Action cites to Craig. Although Craig does discuss a voice over IP system that utilizes the H.323 protocol, the other aspects of the independent claims that are absent from the Ton reference are not provided by Craig. Therefore, Craig does not make up for the deficiencies of Ton with respect to the independent claims.

The Office Action also notes that Ton does not disclose a telephony device comprising an IP telephone, a soft telephone, a video telephone, or a soft video-phone. For such disclosure, the

Office Action cites to Tsutsumi. Applicant agrees that Tsutsumi could be taken as evidence of the existence of IP telephones in the prior art. However, Tsutsumi does not teach, suggest, or describe the use of IP telephones in connection with a system or method as otherwise recited by the pending claims. Moreover, Tsutsumi does not make up for the deficiencies of Ton with respect to the independent claims.

Because the cited references do not provide each and every element of the claims, the rejections under 35 U.S.C. §102 and §103 should be reconsidered and withdrawn. In particular, the following elements of the independent claims indicated by italicized text cannot be found in the cited references:

1. A method for re-establishing an IP protocol call signaling channel, comprising:  
establishing a first call signaling channel between a first communication endpoint and a first gatekeeper, wherein said first call signaling channel provides a first set of call signaling features with respect to a first bearer channel;

*in response to losing said established first call signaling channel, sending a keep alive message to a second gatekeeper; and*

*in response to receiving a registration confirmation message from said second gatekeeper in reply to said keep alive message, establishing a second call signaling channel with said second gatekeeper, wherein said second call signaling channel provides said first set of call signaling features with respect to said first bearer channel and effectively re-establishes said first call signaling channel.*

8. A communication system, comprising:

a first communication endpoint, operable to at least one of receive data from and provide data to an Internet protocol network;

a first gatekeeper, operable to control aspects of operation of a communication endpoint in communication with said first gatekeeper;

a first communication link between said first communication endpoint and said first gatekeeper, wherein said first communication link provides a first call signaling channel in support of a first realtime communication;

a second gatekeeper, operable to control aspects of operation of a communication endpoint in communication with said second gatekeeper; and

a second communication link between said first communication endpoint and said second communication gatekeeper, *wherein said second communication link is established after said first communication link is lost and after an exchange of a lightweight RRQ message and an RCF message between said first communication endpoint and said second communication gatekeeper*, wherein said second communication link provides a second call signaling channel that replaces said first call signaling channel, wherein said first realtime communication formerly supported by said first call signaling channel is supported by said second call signaling channel after said first communication link is lost.

15. A computer-readable medium encoded with a computer program for performing a method, the method comprising:

registering an endpoint with a first gateway, wherein a first signaling link that supports a first bearer channel comprising a realtime communication is established between said endpoint and said first gateway;

*in response to a loss of said first signaling link, sending a lightweight registration request (RRQ) message to a second gateway; and*

*in response to receiving a registration confirmation message from said second gateway, establishing a second signaling link between said endpoint and said second gateway, wherein said second signaling link supports said first bearer channel comprising a realtime communication.*

21. A communication system endpoint, comprising:

means for communicating with a first means for controlling aspects of an exchange of data in realtime between said communication system endpoint and a second communication system endpoint, wherein a first bearer channel is established;

*means for generating a lightweight RRQ message in response to a loss of a communication link between said means for communicating and said first means for controlling aspects of an exchange of data between said communication system endpoint and a second communication system endpoint; and*

means for interconnecting said at least a first communication system endpoint means and said first means for controlling aspects of an exchange of data between said communication system endpoint, wherein a first call signaling channel in support of a first realtime communication is established.

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The Application now appearing to be in form for allowance, early notification of same is respectfully requested. The Examiner is invited to contact the undersigned by telephone if doing so would be of assistance to the Examiner.

Respectfully submitted,

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